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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,979	03/29/2004	Thomas E. Kovanko	SC-5357	5911

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EXAMINER

VELEZ, ROBERTO

ART UNIT PAPER NUMBER

2829

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/813,979

Applicant(s)

KOVANKO ET AL.

Examiner

Roberto Velez

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date 03/06/2006.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 03/06/2006 have been fully considered but they are not persuasive.

Applicant respectfully submits (Page 3, Lines 15-16) that there is no teaching of applicants' invention as recited in claim 1 for an optical current sensor that includes both DC magnetic bias and mechanical prestress bias to a modulator for linearizing the output thereof.

Examiner disagrees to Applicant's arguments. ***Adolfsson et al. (US Pat. 4,547,729)*** shows (Fig. 6) an optical current sensor that includes a DC magnetic bias [59] and mechanical prestress bias [56] to modulator [5]. ***Adolfsson et al.*** is silent about linearizing the output. However, ***Adolfsson et al.*** discloses (Column 1, Lines 16-40) overcoming the problem of non-linear drawbacks with his invention. ***Adolfsson et al.*** discloses (Column 1, Lines 37-40) an example where he states that is possible to obtain measurements of very great exactness and which are independent of instabilities (referring inherently to the linearization problem) and ageing phenomena in the light conductors, for example.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by ***Adolfsson et al. (US Pat. 4,547,729)***.

Regarding claim 1, ***Adolfsson et al.*** shows (Fig. 6) an optical fiber current measuring device comprises: a modulator [5] having magneto-strictive properties; a first means [4] affixed to said modulator [5] for providing an output proportional to the current in the conductor [61]; and second means [59] for coupling the magnetic field generated by the current in the conductor [61] to said modulator [5] and linearizing (with high accuracy as stated in Column 4, Lines 17-18) the output to said first means [4] by providing both DC magnetic bias (using [59]) and mechanical prestress bias (with the bending of [56]) to said modulator [5].

Regarding claim 3, ***Adolfsson et al.*** shows (Fig. 6) second means [59] defines a magnetic path and includes a permanent magnet [59] arranged in said magnetic path.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Adolfsson et al. (US Pat. 4,547,729)** in view of **Goldner et al. (US Pat. 6,211,982)**.

Regarding claim 2, Adolfsson et al. discloses everything as claimed above in claim 1.

**Adolfsson** et al. fails to disclose said first means includes two or more tunable fiber optical filters and the output of said first means is formed by contribution from each of said tunable fiber optical filters. However, **Goldner et al.** shows (Fig. 1) a remote sensor with waveguide optics telemetry comprises said first means [30, 28, 41] includes two or more tunable fiber optical filters and the output of said first means [30, 28, 41] is formed by contribution from each of said tunable fiber optical filters.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of **Goldner et al.** into the device of **Adolfsson et al.** by having two or more tunable fiber optical filters and the output of said first means is formed by contribution from each of said tunable fiber optical filters. The ordinary artisan would have been motivated to modify **Adolfsson et al.** in the manner set forth above for the purpose of reflecting a bigger quantity of the signal as an output in a faster way.

#### **Conclusion**

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Velez whose telephone number is 571-272-8597. The examiner can normally be reached on Monday-Friday 8:00am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roberto Velez  
Patent Examiner



03/29/06  
PARESH PATEL  
PRIMARY EXAMINER